## AMENDMENT OF THE CLAIMS UNDER ARTICLE 19

1. (amended) A finger/palm print image processing
system comprising:

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- a frequency component analysis unit configured to perform a frequency analysis on each of plural small regions into which a finger/palm print image is divided, to obtain plural frequency components representing each of the plural small regions; and
- a frequency component judgment unit configured to judge clarity of the small regions corresponding to the frequency components, based on the frequency components, wherein:

said finger/palm print image indicates at least one of
a finger print and a palm print;

said frequency component analysis unit obtains a first analysis result of performing a frequency analysis on a center portion of the small region, and a second analysis result of performing a frequency analysis on the small region including peripheral portions; and

said frequency component judgment unit judges the small region to be a region having a fine structure if a difference exists between the first and second analysis results, or judges the small region to be a region having a monotonous flow if no difference exists between the first and second analysis results.

2. The finger/palm print image processing system according to claim 1, wherein:

said frequency component analysis unit uses a Fourier transform as the frequency analysis; and

said frequency component judgment unit judges clarity of the small region corresponding to the frequency components, based on the frequency components and a result

of subjecting a clear two-dimensional sinusoidal wave to a Fourier transform.

3. The finger/palm print image processing system according to claim 1 or 2, wherein

said frequency component analysis unit decides one point in a frequency space as the frequency components based on a result of the frequency analysis, and approximates the small region corresponding to the frequency components, to a representative point two-dimensional sinusoidal wave as a two-dimensional sinusoidal wave corresponding to the one point in the frequency space.

- 4. (canceled)
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- 5. (canceled)
- 6. (canceled)
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  - 8. (canceled)
- 9. (amended) The finger/palm print image processing system according to any one of claims 1 to 3, further comprising
  - a ridgeline image extraction unit configured to change a method of extracting ridgelines from the finger/palm print image in the small region, based on the judgment result of clarity of the small region for each of the plural small regions, and to extract the ridgelines.
    - 10. (canceled)

## 11. (canceled)

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12. (amended) A finger/palm print image processing method comprising:

a step (a) of performing a frequency analysis on each of plural small regions into which a finger/palm print image is divided, to obtain plural frequency components representing each of the plural small regions, the finger/palm print image indicating at least one of a finger print and a palm print; and

a step (b) of judging clarity of the small regions corresponding to the frequency components, based on the frequency components, wherein:

said step (a) includes a step (a4) of obtaining a first analysis result performing a frequency analysis on a center portion of the small region, and a second analysis result performing a frequency analysis on the small region including peripheral portions; and

said step (b) includes a step (b3) of judging the small region to be a region having a fine structure if a difference exists between the first and second analysis results, or judging the small region to be a region having a monotonous flow if no difference exists between the first and second analysis results.

13. The finger/palm print image processing method according to claim 12, wherein:

said step (a) includes a step (a1) of using a Fourier transform as the frequency analysis; and

said step (b) includes a step (b1) of judging clarity of the small region corresponding to the frequency components, based on the frequency components and a result

of subjecting a clear two-dimensional sinusoidal wave to a Fourier transform.

14. The finger/palm print image processing method according to claim 12 or 13, wherein

said step (a) includes:

a step (a2) of deciding one point in a frequency space as the frequency components, based on a result of the frequency analysis; and

a step (a3) of approximating the small region corresponding to the frequency components, to a representative point two-dimensional sinusoidal wave as a two-dimensional sinusoidal wave corresponding to the one point in the frequency space.

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- 15. (canceled)
- 16. (canceled)
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  - 18. (canceled)
  - 19. (canceled)

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- 20. (amended) The finger/palm print image processing method according to any one of claims 12 to 14, further comprising
- a step (d) of changing, for each of the plural small regions, a method of extracting ridgelines from the finger/palm print image in the small region, based on the judgment result of clarity of the small region, and extracting the ridgelines.

21. (canceled)

22. (canceled)

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23. (amended) A program for making a computer execute a method, comprising:

a step (a) of performing a frequency analysis on each of plural small regions into which a finger/palm print image is divided, to obtain plural frequency components representing each of the plural small regions, said finger/palm print image indicating at least one of a finger print and a palm print; and

a step (b) of judging clarity of the small regions corresponding to the frequency components, based on the frequency components, wherein:

said step (a) includes a step (a4) of obtaining a first analysis result performing a frequency analysis on a center portion of the small region, and a second analysis result performing a frequency analysis on the small region including peripheral portions; and

said step (b) includes a step (b3) of judging the small region to be a region having a fine structure if a difference exists between the first and second analysis results, or judging the small region to be a region having a monotonous flow if no difference exists between the first and second analysis results.

24. The program according to claim 23, wherein: said step (a) includes a step (a1) of using a Fourier transform as the frequency analysis; and

said step (b) includes a step (b1) of judging clarity of the small region corresponding to the frequency

components, based on the frequency components and a result of subjecting a clear two-dimensional sinusoidal wave to a Fourier transform.

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25. The program according to claim 23 or 24, wherein said step (a) includes:

a step (a2) of deciding one point in a frequency space as the frequency components, based on a result of the frequency analysis; and

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a step (a3) of approximating the small region corresponding to the frequency components, to a representative point two-dimensional sinusoidal wave as a two-dimensional sinusoidal wave corresponding to the one point in the frequency space.

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- 26. (canceled)
- 27. (canceled)

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- 28. (canceled)
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- 30. (canceled)

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- 31. (amended) The program according to any one of claims 23 to 25, further comprising
- a step (d) of changing, for each of the plural small regions, a method of extracting ridgelines from the finger/palm print image in the small region, based on the judgment result of clarity of the small region, and extracting the ridgelines.

- 32. (canceled)
- 33. (canceled)